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December 20, 2010
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Re:	Application of:	Gregory A. Grisham et al.
	Serial No.:	10/729,852
	Filed:	December 5, 2003
	For:	SYSTEM AND METHOD FOR ACCESSING READ ONLY ANSI TABLES IN AN ELECTRICITY METER
	Group Art Unit:	3621
	Confirmation No.:	8312
	Examiner:	Thomas Charles West
	Our Docket No.:	1505-0157

APPEAL BRIEF

Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the rejection of claims 1-22 of the above-identified patent application. Claims 1-22 have been rejected in an office action dated July 21, 2010. In compliance with MPEP 1204.01, we ask that the Commissioner apply the previously paid appeal fee of $540.00 to the Appeal Brief herewith, as no final Board decision has been made on the Appeal filed February 16, 2010. However, we do ask the Commissioner to charge any extension of time which may be necessary and

charge any fees which may be due to Deposit Account No. 13-0014, but not to include any payment of issue fees.

(1) REAL PARTY IN INTEREST

Landis+Gyr, Inc. is the owner of this patent application, and therefore the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences in this case.

(3) STATUS OF CLAIMS

Claims 1-22 are pending in the application.

Claims 1-22 stand rejected and form the subject matter of this appeal. Claims 1-22 are shown in the Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

No amendments have been filed in this case subsequent to the final rejection of August 14, 2009. Accordingly, the claims set forth in the attached Claims Appendix reflect the most recent claim amendments, made in Applicants' last Response to Office Action of April 23, 2009.

The following is a summary of all the amendments and responses made in the present case prior to the final rejection of August 14, 2009:

- Applicants filed a first Amendment and Response to Office Action dated July 19, 2007 (“First Response”) responsive to an Office Action dated April 19, 2007;

- Applicants filed a second Amendment and Response to Office Action on November 16, 2007 ("Second Response") responsive to an Office Action dated August 16, 2007;

- Applicants filed a third Response to Office Action on April 22, 2008 (“Third Response”) responsive to a final Office Action dated February 22, 2008; the examiner withdrew the final rejection as a result of the Third Response;

- Applicants filed another Amendment and Response to Office Action on August 29, 2008 (“Fourth Response”) responsive to a non-final office action dated May 29, 2008; and

- Applicants filed yet another Amendment and Response to Office Action on April 23, 2009 (“Fifth Response”) responsive to another non-final Office Action dated December 23, 2008.

- The Examiner issued a Final Office Action on August 14, 2009 (the “Final Office Action”) in response to the Fifth Response.

- Applicants filed a Notice of Appeal on December 14, 2009 in response to the Final Office Action. On February 14, 2010, Applicants also filed an Appeal Brief (the "First Appeal Brief").

- In response to the Appeal Brief, The Examiner reopened prosecution on July 21, 2010 by issuing a non-final Office Action (the “July 2010 Office Action”).

- Applicants filed another Notice of Appeal on October 14, 2010 in response to the July 2010 Office Action.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

An explanation of the subject matter defined in each of the independent claims involved in the appeal is provided below.

A. Independent Claim 1

Applicants' claimed invention, as set forth in independent claim 1, is directed to a utility meter (see reference numeral 10 of FIG. 1 and description of meter at page 7 line 15 to page 8, line 21 of the specification). The utility meter (10) incorporates standard meter industry data structures including security data table parameters (e.g., ANSI C12.19 data structures including Decade4 tables, as described at page 2, line 15 to page 4, line 17 of the background portion of the specification, and at page 9, lines 7-12 of the specification). As shown in FIG. 2, the meter includes a security component (see reference numeral 54) for determining whether an externally generated access key is the same as an internally generated access key (see page 9 line 19 to page 10, line 22 of the specification). The meter (10) also includes a bypass component (see reference numeral 58 of FIG. 2) for enabling a data access operation by an external device *without reference to the security data table parameters* included within the utility meter (see page 9 line 19 to page 10, line 22 of the specification; also see FIG. 4 where data access is allowed in step 134 if the access keys match in step 120, and Decade4 security processing is resumed in step 138 *after* the data access step 134).

B. Independent Claim 13

Applicants' claimed invention, as set forth in independent claim 13, is directed to a method for modifying a read-only table in a utility meter (10) incorporating standard meter industry data structures including security access tables (e.g., ANSI C12.19 data structures including Decade4 tables, as described at page 2, line 15 to page 4, line 17 of the background portion of the specification, and at page 9, lines 7-12 of the specification). The method comprises receiving a request for a security key with a security component of the utility meter (see step 100 of FIG. 4, security component 54 of FIG. 2, and related description at page 12, lines 4-5 of the specification). The method further comprises generating a security key with the security component (see step 104 of FIG. 4, security key generator 60 of FIG. 2, and related description at page 12, lines 5-6). In addition, the method comprises generating an access key from the security key with the security component, wherein the generated access key is generated within the utility meter (see step 114 of FIG. 4, access key generator 64 of FIG. 2, and related description at page 12, lines 7-8). Yet another method limitation of claim 13 is that of comparing the generated access key to an externally generated access key with the security component (see step 120 of FIG. 4, access key comparator 68 of FIG. 2, and related description at page 12, lines 8-10). The method of claim 13 finally calls for enabling a data access operation to occur without reference to the security access tables included within the utility meter (e.g., Decade4 tables) with a bypass component (58) of the utility meter (see step 134 of FIG. 4, bypass component 58 of FIG. 2, and related description at page 12-15).

As set forth above, limitations of claim 13 can be understood with reference to FIG. 4 which discloses a method of enabling an external device to perform a data access operation

on a utility meter *without reference to the security access tables (e.g., Decade4 tables) included within the utility meter.* The data access operation is allowed only after the internally generated access key is compared to an externally generated access key. As noted in step 138 of FIG. 4, after the data access operation, the meter resumes security processing with reference to the security access tables (e.g., the Decade4 tables).

C. Independent Claim 22

Applicants' claimed invention, as set forth in independent claim 22, is directed to a utility meter (see reference numeral 10 of FIG. 1) incorporating meter table data structures including security table parameters (e.g., ANSI C12.19 data structures including Decade4 tables, as described at page 2, line 15 to page 4, line 17 of the background portion of the specification, and at page 9, lines 7-12 of the specification). The claimed utility meter (10) comprises a security key generator (see reference numeral 60 of FIG. 2) configured to generate a security key. An access key generator (see reference numeral 64 of FIG. 2) is configured to receive the security key and generate an internal access key. A security component (see reference numeral 68 of FIG. 2) is configured to compare an externally generated access key (see "external device" of FIG. 2) to the internal access key (see "access key generator" in FIG. 2). A bypass component (see reference numeral 58 in FIG. 2) is configured to enable a data access (see block 134 in FIG. 4) by a device external to the utility meter (see "external device" of FIG. 2), without reference to the security table parameters included within the utility meter.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 13-20 are unpatentable under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

B. Whether claims 4, 6, 14 and 15 are unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.

C. Whether claims 1-22 are unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention, and as failing to set forth the subject matter which the applicants regard as their invention.

D. Whether claims 1, 2-7, 13-15 and 20-22 are unpatentable under 35 U.S.C. § 103(a) as being obvious over US 7,065,457 to Germer (hereinafter "Germer") in view of US 4,918,728 to Matyas et al. (hereinafter "Matyas") in view of US 5,107,455 to Haines (hereinafter "Haines"), and in further view of Kinter-Meyer article entitled, "Utility/Energy Management and Control System Communication Protocol Requirements" (hereinafter "Kinter-Meyer").

E. Whether claims 8-12 and 16-19 are unpatentable under 35 U.S.C. § 103(a) as allegedly being obvious over Germer in view of Matyas et al. in view of Haines, in further view of Kinter-Meyer, and further in view of US 5,715,390 to Hoffman et al.

(7) ARGUMENT

A. The Rejection of Claims 13-20 Under 35 U.S.C. § 101 Should be Reversed

In the July 2010 Office Action, the Examiner rejected claims 13-20 under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Applicants submit that the Examiner erred in the July 2010 Office Action for at least two reasons related to the rejection of claims 13-20 under 35 U.S.C. § 101. First, the examiner erred by using an incorrect standard for determining a patent eligible process under 35 U.S.C. § 101. Second the examiner erred by ruling that claims 13-20 do not pass the machine-or-transformation test.

1. Standard for patent eligible subject matter under 35 U.S.C. § 101

At pages 2-3 of the July 2010 Office Action, the examiner argued that in order for a process to be patent eligible under 35 U.S.C. § 101, the "process must be (1) tied to a particular machine (or apparatus), or (2) transform a particular article to a different state or thing" (i.e., the examiner argues that the process must pass the "machine-or-transformation test"). Applicant respectfully submits that the examiner has misstated the standard for a patent eligible process under 35 U.S.C. § 101.

In *Bilski v. Kappos*, 561 U.S. ___ (2010), the Unites States Supreme Court stated that although "[t]he machine-or-transformation test is a useful and important clue … for determining whether some claimed inventions are processes under § 101 … [t]he machine-or-transformation test not the sole test for deciding whether an invention is a patent-eligible 'process' [under § 101]" (emphasis added). *Bilski v. Kappos*, No. 08-964, slip op., at 8 (U.S. June 28, 2010). The Supreme Court further clarified that "[a]ny suggestion in this Court's case law that the Patent Act's terms deviate from their ordinary meaning has only been an explanation for the exceptions for laws of nature, physical phenomena, and abstract ideas."

Id. at 6. Accordingly, based on the Supreme Court's position in Bilski, a claimed process may only be rejected under 35 U.S.C. § 101 if the claimed invention is merely (i) a law of nature, (ii) a physical phenomena, or (iii) an abstract idea. While the machine-or-transformation test may be used to show that a claimed invention is not merely a law of nature, physical phenomena, or abstract idea, it is not the only test for determining what is patent eligible under § 101. Therefore, even if a claimed invention does not pass the machine-or-transformation test, this does not mean that the examiner has shown the claimed invention to be unpatentable under § 101 as being merely a law of nature, physical phenomena, or abstract idea.

In the present case, the examiner has merely argued that the invention claimed in claims 13-20 does not pass the "machine-or-transformation test". The examiner has not argued or attempted to show that the invention of claims 13-20 is an unpatentable law of nature, physical phenomena, or abstract idea, as required by *Bilski*. Accordingly, it is respectfully submitted that the examiner has erred by applying an improper standard for patent eligibility to claims 13-20 of the present application.

2. Claims 13-20 do pass the "machine-or-transformation test"

At page 3 of the July 2010 Office Action, the examiner argued that the claimed process fails part (1) of the machine-or-transformation test "because the methods [sic] steps of receiving, generating, comparing, enabling are not tied to a specific machine since the methods [sic] steps could be performed by a human being, since they could be manual steps."

Contrary to the examiner's contention, Applicants respectfully submit that claim 13 satisfies at least part (1) of the of the machine-or-transformation test. First, in the preamble claim 13 specifically calls for a "method for modifying a read-only table *in a utility meter*".

This language ties the claimed method to a particular machine or apparatus, i.e., a utility meter.

Second, claim 13 calls for "receiving a request for a security key *with a security component of the utility meter*" and "generating a security key *with the security component*". Because the security component is clearly described as being part of the utility meter, this step simply could not be performed by a human being, contrary to the examiner's arguments. Thus, for at least this reason claim 13 is tied to a particular machine or apparatus, thus satisfying part (1) of the machine-or-transmformation test.

Third, claim 13 calls for "enabling a data access operation to occur ... *with a bypass component of the utility meter*". Again, because the bypass component is clearly described as being part of the utility meter, this step simply could not be performed by a human being, contrary to the examiner's arguments. For at least this reason claim 13 is tied to a particular machine or apparatus, and satisfies the machine-or-transmformation test.

In view of the foregoing, it is respectfully submitted that claim 13 is patent-eligible under 35 U.S.C. § 101 because the method of claim 13 satisfies at least part (1) of the of the machine-or-transformation test. Accordingly, it is respectfully submitted that the non-statutory subject matter rejection of claim 13 should be reversed for at least this reason.

Claims 14-20 depend from and incorporate all of the limitations of amended claim 13. As set forth above, the 35 U.S.C. § 101 rejection of claim 13 should be reversed. Therefore, because each of dependent claims 14-20 depends from and incorporates all of the limitations of independent claim 13, the Examiner's rejection of dependent claims 14-20 under 35 U.S.C. § 101 should also be reversed for at least the same reasons.

B. The Rejection of Claims 4, 6, 14 and 15 Under 35 U.S.C. § 112, Second Paragraph Should be Reversed

In the July 2010 Office Action, the Examiner rejected claims 4, 6, 14 and 15 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As set forth below, it is respectfully submitted that the examiner's rejection of claims 4, 6, 14 and 15 under 35 U.S.C. § 112, second paragraph, is in error and should be reversed.

1. Claims 4 and 14

With respect to claims 4 and 14, the Examiner alleges at page 4 of the July 2010 Office Action that the terms "arithmetically combines" and "arithmetically combining" in claims 4 and 14 are "*relative terms*" which render the claims indefinite. Additionally, the Examiner argued at page 4 of the July 2010 Office Action that "both terms are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention". Furthermore, in the Response to Arguments portion at page 18 of the July 2010 Office Action, the Examiner argued that the terms "arithmetically combines" and "arithmetically combining" are "not supported by the specification, such as addition, subtraction, etc".

It is respectfully submitted that the Examiner's rejection under 35 U.S.C. § 112, second paragraph is improper because (a) the examiner has failed to consider the ordinary meaning of the terms in question, and (b) the terms in question are neither relative terms nor terms of degree.

a. The Words of a Claim Must Be Given Their Plain Meaning

As set forth in the MPEP, "the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification". (MPEP § 2111.01 citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). Furthermore, "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention". See MPEP § 2111.01 citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*).

Applicants respectfully submit that the term "arithmetic" has a plain meaning. In particular, "arithmetic" refers to "the mathematics of integers, rational numbers, real numbers, or complex numbers under addition, subtraction, multiplication, and division." THE AMERICAN HERITAGE® DICTIONARY OF THE ENGLISH LANGUAGE, Fourth Edition, 2000. Because the ordinary meaning of term "arithmetically" includes "addition, subtraction, multiplication, and division", Applicants submit that the written description requires no further definition of the term.

b. "Arithmetically Combines" and "Arithmetically Combining" are not Relative Terms or Terms of Degree

At page 4 of the July 2010 Office Action, the Examiner alleges that the terms "arithmetically combines" and "arithmetically combining" are *relative* terms or terms of degree. Applicants submit that "terms of degree" refer to words that encompass an uncertain range of possibilities, which makes the scope of what is claimed unclear. See MPEP § 2173.05(b).

The term "arithmetic" has clear and distinct boundaries as referring to a mathematical operation. Indeed, as set forth above, the term "arithmetically" may refer to addition,

subtraction, multiplication, and division. It is also respectfully submitted that the term "combine" has clear and distinct boundaries. Therefore, it is respectfully submitted that the terms "arithmetically combines" and "arithmetically combining" are readily understandable action terms with clear and distinct boundaries. The fact that these terms encompass more than one possibility does not result in terms that do not have distinct boundaries.

The requirement of 35 U.S.C. § 112, second paragraph, ensures that the scope of a claim is well defined. See MPEP § 2173.05(b). The term "arithmetically combine" refers to four mathematical operations, and does have a distinct boundary. Therefore, it is respectfully submitted that there is no issue regarding an uncertain claim scope. Accordingly, it is respectfully submitted that the examiner's rejection of claims 4 and 14 under 35 U.S.C. § 112, second paragraph, is in error and should be reversed.

2. Claims 6 and 15

With respect to claims 6 and 15 the Examiner alleges at page 4 of the July 2010 Office Action that "the terms 'augments' and 'augmenting' are relative terms which render the claim indefinite". Applicants submit that the terms "augments" and "augmenting" are not relative terms. Furthermore, even if the Examiner were to consider the terms to be relative terms, one of ordinary skill in the art would understand what is claimed.

As mentioned above, "the primary purpose of the requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent". See MPEP § 2173. Usage of exemplary relative claims such as "about", "essentially", and "similar" may at times lead to indefinite claims because of the "range of degree" introduced by these terms. Applicants submit, however, that the terms "augments" and "augmenting" as used in claims 6 and 15

result in no such "range of degree". The plain meaning of the term "augment" is well known. In addition, the language of claims 6 and 15 makes clear precisely what is being augmented: namely, the security key. Therefore, because the terms "augments" and "augmenting" clearly describe the scope of claims 6 and 15, the § 112, second paragraph, rejection is in error and should be reversed.

Even if the terms "augments" and "augmenting" are considered to be relative terms, this does not automatically render the claims indefinite. Indeed, "the fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. § 112, second paragraph". MPEP § 2173.05(b), citing *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818 (Fed. Cir. 1984). "Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification". MPEP § 2173.05(b). With this guidance in mind, Applicants refer to page 11 of the specification which provides an exemplary meaning of the terms:

> Preferably, both the external device and procedure augment the security key with additional data before submitting the security key to the function F_{ak} to generate the access key. This additional data is stored in the meter 10 by the manufacturer and is also stored in the external device.

Thus, the specification provides an example of how the security key is augmented, thereby enabling one of ordinary skill in the art to understand what is claimed.

In view of the foregoing, it is respectfully submitted that the terms "augments" and "augmenting" are not relative terms. Furthermore, it is respectfully submitted that even if these terms were considered relative terms, they do not render the claims indefinite since one of skill in the art would readily understand what is being claimed in light of the specification.

Accordingly, it is respectfully submitted that the 35 U.S.C. § 112, second paragraph rejection of claims 6 and 15 is in error and should be reversed.

C. The Rejection of Claims 1, 2-7, 13-15 and 20-22 Under 35 U.S.C. § 103(a) Should be Reversed

In the July 2010 Office action, the Examiner rejected independent claims 1, 13, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Germer in view of Matyas, in view of Haines, and further in view of Kinter-Meyer (references referred to collectively as the "Cited References"). Applicants respectfully submit that the Examiner's rejection of claims 1, 13, and 22 under 35 U.S.C. § 103(a) is in error and should be reversed, as (1) there is no suggestion or motivation to modify the references or combine reference teachings (see MPEP § 2143.01), and (2) the combination of references does not teach or suggest all claim limitations and thus does no arrive at the claimed invention (see MPEP § 2143.03).

1. There Is No Motivation To Combine Germer, Matyas and Haines

Applicants respectfully submit that (a) the examiner's proposed combination of Germer and Matyas is improper; and (b) the examiner's proposed combination of Haines with Germer and Matyas is in error.

a. The Combination of Germer and Matyas is Improper

"There are three possible sources for a motivation to combine references: the nature of the problems to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998). However, "rejections on obviousness cannot be sustained with mere conclusory statements; instead

there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (MPEP § 2142).

In the July 2010 Office action, the Examiner failed to establish a motivation for combining Germer and Matyas. Instead, on pages 6-7 of the July 2010 Office Action, the Examiner set forth different features shown in Germer and Matyas. On page 6 of the Office action, the Examiner admitted that Germer "does not disclose a bypass component". The Examiner then argued at pages 6-7 that "back-door or bypass security methods are well known in the art as exemplified by Matyas". The Examiner then concluded that "it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Germer with the bypass of security features of Matyas since this allows for meter calibration and upgrade that would otherwise be denied access due to a data table read only restriction, incorporated by the ANSI C12.19 standard" (see p. 7, lines 3-6 of the July 2010 Action).

Applicants respectfully submit that the foregoing motivation to combine Matyas with Germer is improper. In particular, the examiner has not explained or *clearly articulated* why one of skill in the art would be led to combine the "back-door" system described in Matyas with Germer. First, the examiner's proposed combination completely ignores the stated purpose of the "back-door" system of Matyas. Matyas is directed to a data cryptography operation where control vectors are coupled to keys. Matyas specifically states that in the method for coupling the control vector and key, the control vector checking is unable to detect a system generated key from a non-system generated key (see col. 15, lines 18-25 of Matyas). Matyas specifically states that this is the reason for the "back-door" method (i.e., "[Control Vector] checking is unable to detect a system generated key from a non-system generated key"). The examiner has simply not explained why this situation or problem

would apply to the arrangement described Germer such that one of skill in the art would be led to include the "back-door" method of Matyas with the system of Germer.

Second, the examiner has failed to explain why one of skill in the art would modify a meter such as Germer that uses standard meter industry data structures with security data tables (e.g., the ANSI C12.19 standard) in such a manner to purposefully avoid use of the standard data structures. In the present case, the claims call for a utility meter that includes standard meter industry data structures including security data tables but is also configured to allow data access operations "*without reference to the security data table parameters*". Applicants respectfully submit that this is a novel and non-obvious concept, and there was no motivation for such a combination at the time of the invention. Accordingly, the Examiner's suggestion of such a combination is no more than impermissible "hindsight".

One indicator that the Examiner is using impermissible "hindsight" is that the prior art actually "teaches away" from the Examiner's proposed combination. A prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness". (MPEP § 2145). Furthermore, **proceeding contrary to accepted wisdom in the art is evidence of nonobviousness**. (MPEP § 2145; *citing In re Hedges*, 228 USPQ 685 (Fed. Cir 1983)).

The Examiner noted in the July 2010 Office Action, that according to Matyas, the back door method is "primarily an annoyance" and additional methods should be taken to avoid the back door method (see p. 6, lines 11-16). Thus, Matyas discloses that it is desirable and simple to design an architecture that *avoids* the "back door" method. (*See* Matyas, column 15, lines 40-41). By contrast, the bypass component of the present application provides a desirable method of data access. With this in mind, it can be seen that

Applicant's claimed invention *proceeds contrary to the accepted wisdom* cited by the Examiner in Matyas, and thus it is respectfully submitted that Matyas "teaches away" from the present invention under MPEP § 2145. Because Matyas teaches away from the claimed invention, the Examiner has not made a *prima facie* case of obviousness, and the Examiner's rejection of claims 1, 13, and 22 under 35 U.S.C. § 103 should be reversed for at least this reason.

b. The Combination of Germer and Matyas With Haines is Improper

i. *The Examiner has provided only a conclusory statement for combining the references*

On page 7 of the July 2010 Office action, the Examiner admitted that neither Germer nor Matyas disclose "a security component for determining whether an externally generated access key is the same as an internally generated access key". The examiner then argued that Haines discloses this limitation and "it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Germer/Matyas with the security component of Haines in order to authenticate data access operations" (see p. 7, lines 18-20 of the July 2010 Office Action). However, the examiner has provided no explanation of any shortcomings of Germer or Matyas or their alleged combination that would make the proposed combination with Haines desirable. For example, the examiner has failed to explain why one would modify the meter of Germer which already includes security data tables, to allow data access operations "*without reference to the security data table parameters*". Furthermore, the examiner has failed to explain why it would be obvious to include the specific arrangement of Haines even if one were led to modify Germer. Absent a clear articulation of such

motivations, it is respectfully submitted that the Examiner's stated motivation for combining Haines with Germer and Matyas is no more than a conclusory statement made with impermissible "hindsight".

ii. ***Haines is non-analogous prior art***

Yet another reason that it would not be obvious to combine Haines with Germer and Matyas is that **Haines is non-analogous prior art**. In order to rely on a reference under 35 U.S.C. § 103, the reference must be analogous prior art. (MPEP § 2141.01(a)). A reference in a field different from that of Applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole. *Id.* Accordingly, the determination that a reference is from a non-analogous art is twofold. First, an Applicant should demonstrate whether the reference is in a field different from that of the Applicant's endeavor. (*See id.*). Second, if the reference is in a different field, it must be determined if the reference would have commended itself to an inventor's attention in considering his or her invention as a whole. (*See id.*).

First, Haines relates to the field of postage meters. The present invention, on the other hand, relates to utility meters, as set forth in each of the claims of the present application. Accordingly, the field of Haines is not within the field of the Applicants' endeavor.

Second, Haines would not have commended itself to the Applicants' attention in considering his or her problem as a whole. Applicant's problem, as set forth in the background section of the application, involves bypassing the security provided by security tables in a utility meter so that a technician may write data into the meter's data tables, such

as when a meter is out of calibration and requires service. Conversely, Haines involves a technique for reconfiguring a postage field device with a new I/O configuration number, which will allow new features to be used in the postage device. It is respectfully submitted that these problems are unrelated, as one problem involves allowing security tables to be bypassed in order to allow data to be written to other tables within the utility meter, and the other problem involves entry of a code that opens new functionality in a postage device. Accordingly, because Haines is non-analogous prior art, it is respectfully submitted that the Examiner has failed to make a *prima facie* case of obviousness, and the rejection of claims 1, 13, and 22 under 35 U.S.C § 103(a) should be withdrawn.

It should be noted that Applicants submitted the foregoing non-analogous art argument related to Haines in both the Fourth Response, the Fifth Response, and the First Appeal Brief. However, the Examiner has yet to rebut the argument or make a case that Haines is indeed analogous prior art. Accordingly, for at least the reason that the examiner has failed to respond to the argument that Haines is non-analogous prior art, and the Examiner's rejection of claims 1, 13 and 22 should be reversed.

2. The Combination of References Does Not Arrive At the Invention of Claims 1, 13, and 22

It is respectfully submitted that the Examiner has failed to make a *prima facie* case of obviousness for at least the reason that none of Germer, Matyas, Haines and Kinter-Meyer teach or suggest all the limitations of claims 1, 13, and 22, either alone or in combination. In particular, no cited reference discloses "a utility meter incorporating standard meter industry data structures including security data table parameters" having a "bypass component for enabling a data access operation by an external device without reference to the security data

table parameters included within the utility meter" (emphasis added) as recited in claim 1 and as recited with similar language in claims 13 and 22. In other words, there is no disclosure in any reference of a meter that includes standard meter industry data structures with security data table parameters yet also includes a means for bypassing such security data table parameters within the meter. As a consequence, Applicants respectfully submit that the obviousness rejection of claims 1, 13, and 22 is in error and should be reversed.

At page 6, lines 1-3 of July 2010 Office Action, the examiner noted that Germer discloses the use of ANSI C12.19 standard tables. However, as admitted by the Examiner at page 6, lines 4-5 of the July 2010 Office Action, Germer does not disclose a bypass component. The examiner then argued that Matyas does disclose such a bypass component. It is respectfully submitted that the bypass component of Matyas is not used in a meter incorporating *standard meter industry data structures* including security data table parameters. Instead, the bypass component of Matyas is designed for use in a data cryptography operation where control vectors are coupled to keys and the system is unable to detect a system generated key from a non-system generated key (see col. 15, lines 18-25 of Matyas). Accordingly, the Matyas system does not appear to be relevant to Germer, and the examiner has not explained its relevance, other than the simple mention of its "back door" system. Therefore, it is respectfully submitted that the proposed combination of Germer, Matyas, Haines and Kinter-Meyer would not arrive at the claimed invention, and for at least this reason, the examiner's rejection of claims 1, 13 and 22 is in error and should be reversed.

3. Dependent Claims 2-12 and 14-21

a. Each Depend From Independent Claims 1 or 13

In the July 2010 Office action, the Examiner rejected dependent claims 2-12 and 14-21 under 35 U.S.C. § 103(a). Each of the above claims depends from and incorporates all of the limitations of one of independent claims 1 or 13. As set forth above, the Examiner's rejection of claims 1 and 13 should be reversed. Therefore, because each of dependent claims 2-12 and 14-21 depends from and incorporates all of the limitations of one of independent claims 1 or 13, the Examiner's rejection of dependent claims 2-12 and 14-21 should also be reversed for at least the same reasons.

b. The Dependent Claims, Including Claim 9, State Additional Limitations Not Disclosed in the Cited References

In addition to the above, it is respectfully submitted that claims 2-12 and 14-21 include additional limitations that are not found in the cited references. One example of such a limitation is that of dependent claim 9 which calls for an "unlock timer for timing an interval corresponding to a data access operation and for resetting the access key comparator in response to a data access being performed by the external device". At page 14 of the July 2010 Office Action, the Examiner argues that the counter in Hoffman is equivalent to an "unlock timer". However, as admitted by the examiner, the counter of Hoffman provides limited data access based on the number of upgrades purchased. Limiting data access based on the number of upgrades purchased is simply not equivalent to an "unlock timer for *timing an interval corresponding to a data access operation*" as set forth in claim 9. Instead, the counter of Hoffman decremented each time an upgrade is downloaded. This is the essence of the distinction between a timer and a counter. A timer counts based on time. A counter

counts the number of something else. The counter of Hoffman simply does not time an interval corresponding to a data access operation as set forth in claim 9. Accordingly, for at least this reason, it is respectfully submitted that the examiner's rejection of claim 9 is in error and should be reversed.

(8) CONCLUSION

For all of the foregoing reasons, it is respectfully submitted that the Examiner has erred, and claims 1-22 are not unpatentable under 35 U.S.C. § 103(a). As a consequence, the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,

/Russell E. Fowler II/
Russell E. Fowler II
Attorney for Applicants
Attorney Registration No. 43,615
Maginot Moore & Beck
Chase Tower
111 Monument Circle, Suite 3250
Indianapolis, Indiana 46204-5109
Telephone: (317) 638-2922

CLAIMS APPENDIX

1. A utility meter incorporating standard meter industry data structures including security data table parameters, the utility meter comprising:

a security component for determining whether an externally generated access key is the same as an internally generated access key; and

a bypass component for enabling a data access operation by an external device without reference to the security data table parameters included within the utility meter.

2. The meter of claim 1, the security component further comprising:

a security key generator for generating a security key.

3. The meter of claim 2 wherein the security key generator generates the security key from variable data and data associated with the meter.

4. The meter of claim 3 wherein the security key generator arithmetically combines the variable data and the data associated with the meter to generate the security key.

5. The meter of claim 2, the security component further comprising:

an access key generator for generating an access key from the security key.

6. The meter of claim 5 wherein the access key generator augments the security key before generating the access key.

7. The meter of claim 5, the security component further comprising:

An access key comparator for comparing the access key generated by the access key generator to an access key received from an external device.

8. The meter of claim 7, the bypass component further comprising:

a data access monitor for monitoring data access operations performed by the external device and resetting the access key comparator in response to a data access being performed by the external device.

9. The meter of claim 8, the bypass component further comprising:

A unlock timer for timing an interval corresponding to a data access operation and for resetting the access key comparator in response to a data access being performed by the external device.

10. The system of claim 1 wherein the bypass component enables a single data access operation by the external device.

11. The system of claim 1 wherein the security component and bypass component are implemented by a procedure.

12. The system of claim 11 wherein the procedure is a computer program executed by a processor in the utility meter.

13. A method for modifying a read-only table in a utility meter incorporating standard meter industry data structures including security access tables, the method comprising:

receiving a request for a security key with a security component of the utility meter;

generating a security key with the security component;

generating an access key from the security key with the security component, wherein the generated access key is generated within the utility meter;

comparing the generated access key to an externally generated access key with the security component; and

enabling a data access operation to occur without reference to the security access tables included within the utility meter with a bypass component of the utility meter.

14. The method of claim 13, the security key generating including:

arithmetically combining the variable data with data associated with a utility meter to generate the security key.

15. The method of claim 13, the access key generation including:

augmenting the security key before generating the access key.

16. The method of claim 13 wherein the data access enabling includes:

monitoring for a data access operation by an external device in response to the comparison of the access keys being the same.

17. The method of claim 16 wherein the data access enabling includes:

timing a data access interval; and

resuming security processing with reference to security tables in response to the data access interval time expiring.

18. The method of claim 13, the access key generation including:

generating the access key with an encryption function.

19. The method of claim 13, the access key generation including:

generating the access key with a hashing function.

20. The method of claim 13, further comprising the step of performing a data access operation without reference to the security tables.

21. The utility meter of claim 1 wherein the standard meter industry data structures are ANSI C12.19 data structures and the security data table parameters are Decade4 table parameters.

22. A utility meter incorporating meter table data structures including security table parameters, the utility meter comprising:

a security key generator configured to generate a security key;

an access key generator configured to receive the security key and generate an internal access key;

a security component configured to compare an externally generated access key to the internal access key; and

a bypass component configured to enable a data access operation by a device external to the utility meter without reference to the security table parameters included within the utility meter.

EVIDENCE APPENDIX

This section is empty

[NONE]

RELATED PROCEEDINGS APPENDIX

This section is empty

[NONE]